



2SC3199

NPN SILICON TRANSISTOR

FEATURES

Power dissipation

P_{CM} : 400 mW ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 150 mA

Collector-base voltage

$V_{(BR)CBO}$: 50 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

TO-92S

- 1. EMITTER
- 2. COLLECTOR
- 3. BASE



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=50V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=6V, I_C=2mA$	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.1	0.25	V
Transition frequency	f_T	$V_{CE}=10V, I_C=1mA$	80			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		2.0	3.5	pF
Noise figure	NF	$V_{CE}=6V, I_C=0.1mA, f=1KHZ, R_g=10K\Omega$		1.0	10	dB
h_{FE} Linearity		$h_{FE}(0.1mA)/h_{FE}(2mA)$		0.95		

CLASSIFICATION OF $h_{FE(1)}$

Rank		Y	GR	
Range		120-240	200-400	